WASHINGTON STATE
DEPARTMENT OF
ECOLOGY

As required by
the Washington State Administrative Procedures Act
Chapter 34.05 RCW

CONCISE EXPLANTORY STATEMENT
AND
RESPONSIVENESS SUMMARY
FOR THE ADOPTION OF
Chapter 173-350 WAC,
Solid Waste Handling Standards

April 18, 2005
Publication: 05-07-027

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Prepared by:

Washington State Department of Ecology

Solid Waste & Financial Assistance Program

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CONCISE EXPLANATORY STATEMENT

I. Introduction

- Chapter 173-350 WAC, Solid Waste Handling Standards was originally adopted on January 10, 2003. The adopted rule provided a very flexible system for managing soils and dredged material that contained contaminants. The intent was to allow as much soil and dredged material to be reused as possible while protecting public health and the environment.

  The adopted rule relied heavily on professional judgment to determine when it is appropriate to place soils or dredged material at a particular location without the benefit of a solid waste permit. Several stakeholders expressed concern with this approach after the rule became effective. Although stakeholders were divided on what soils and dredged material should be regulated as a contaminated soil or contaminated dredged material, the majority favored more specificity in the standards to help ensure greater consistency by the regulatory agencies, and a higher level of certainty for soil and dredged material handlers when entering into contractual obligations.

  This rule change takes us back to the applicable definitions found in Chapter 173-304 WAC, Minimum Functional Standards for Solid Waste Handling, which the Solid Waste Handling Standards were meant to replace. The Minimum Functional Standards for Solid Waste Handling used the term “problem wastes” for contaminated soils and contaminated dredged materials. Contaminated soils and contaminated dredged material, as defined by this change, are subject to the solid waste handling standards in Chapter 173-350 WAC.

  This rule change is a temporary fix and is not intended to address all of the concerns associated with the handling of soils and dredged material. Ecology will initiate another rule making process in the spring of 2005 following the adoption of this change. The goal of the rule making will be to find the least burdensome soil and dredged material management strategy that is protective of public health and the environment.

  All jurisdictional health departments and districts in Washington have local ordinances in-place adopting the definitions of contaminated soils and contaminated dredged material found in the original rule. Persons handling soils and dredged material that contain contaminants will need to

meet the requirements of this rule change and effective local ordinances during the interim period.

- Adoption and Effective Dates:
  Chapter 173-350 WAC, Solid Waste Handling Standards, will be adopted on Month XX, 2005.
  The effective date will be Month XX, 2005.

II. Differences Between Proposed and Final Rule

- The adopted rule has been revised from the version proposed with the CR-102 filing at the Office of the Code Reviser because of an editing error in the original filing. The revision is shown below. The text of the proposed rule that is being changed is in the strikethrough format and the new text is underlined.

> **"Contaminated dredged material"** means dredged material resulting from the dredging of surface waters of the state where contaminants are present in the dredged material at concentrations not suitable for open water disposal and the ~~dredge spoils~~ dredged material ~~are~~ is not dangerous waste~~s~~ and ~~are~~ is not regulated by section 404 of the Federal Clean Water Act (P.L. 95-217).

III. Responsiveness Summary

This section contains the comments received and the Department's responses to those comments. The comments have been summarized here from the letters and emails submitted by the public. Full copies of the written comments can be found in the appendix. No member of the public presented oral testimony at the public hearing held in Lacey on February 23, 2005.

Because of the temporary nature of this rule change, many issues related to the regulation of soils and dredged material are not addressed at this time but are planned to be addressed in follow-up rule making. Comments are presented under two main headings; comments related to this rule change and those that will be addressed in the future. Within each main heading, comments are listed by subject. Each comment indicates the commenter's last name.

Comments associated with this rule making effort

Topic –General comments.

One commenter expressed concern regarding the proposed changes to the rule.

Kenefick stated the following in the introduction and conclusion paragraphs:

> On behalf of its companies operating in Washington, Waste Management appreciates this opportunity to comment on the Department of Ecology's proposed revisions to WAC 173-350-100's definitions of contaminated soils and clean dredged materials. As will be apparent from the following comments, Waste Management has serious concerns about the proposed regulations. While Waste Management agrees in principle that "clean soils" and "clean dredged sediment" should fall outside of solid waste regulation, Waste Management disagrees with how Ecology has chosen to revise the regulations.

And:

> As should be apparent, Waste Management believes that the proposed regulations are flawed. We encourage the Department to consider carefully our comments and revise the regulations accordingly.

Ecology's Response – Ecology agrees there are inherent flaws in the proposed changes. The proposed definitions return to those for *problem wastes* found in the Minimum Functional Standards for Solid Waste Handling, Chapter 173-304 WAC, which was replaced with the Solid Waste Handling Standards in 2004. Because of flaws in the problem wastes definition, Ecology proposed and adopted the definitions for contaminated soils and contaminated dredged material found in the 2004 rule. Returning to the previous definitions is an imperfect but temporary change intended to reduce the difficulties some persons had interpreting the 2004 rule. A more satisfactory and lasting solution will be found in the follow-up rule making process.

Topic –The proposed changes do not improve clarity.

Commenters claim the proposed changes do not provide greater clarity or lessen the uncertainties associated with the regulatory status of soils and dredged material. Commenters also point out the proposed rule changes do not provide a final solution to difficulties experienced under the 2004 definitions.

Butler/Hendrickson stated the following:

> The proposed changes will provide a partial and, as identified by Ecology, temporary fix to these problems by limiting the sites at which the contaminated soils definition applies to those undergoing cleanup.

And:

> This definition of contaminated soil continues the same ambiguity regarding the distinction between "clean" and "contaminated" as the previously withdrawn regulations. The only difference is that the ambiguity now only applies to soil removed from cleanup sites, rather than all sites.

And Kenefick:

> When Ecology embarked on its efforts to provide regulatory clarification to what soils and sediments are "clean" or "contaminated", Waste Management agreed

> that this clarification was wanting and necessary. We provided extensive comments on proposed guidance, copies of which are attached to these comments and incorporated herein. Yet, the proposed regulations — even if a "temporary fix" — have not only failed to provide any clarification, they will create even greater uncertainty for anyone trying to manage soils and sediments in an environmentally appropriate manner.

Ecology's Response – Ecology acknowledges the proposed definition changes provide only a temporary, partial solution by returning to a more familiar definition and reducing the scope of applicability.

Topic –The limited applicability of the proposed rule changes for soils.

Commenters point out the proposed rule changes do not regulate soils or dredged material based upon the level of contamination contained, but on the source of the material.

Kenefick stated the following:

> The Proposed Regulations Are Inconsistent with Chapter 70.95 RCW. In RCW 70.95.030(23), the Washington Legislature defined "solid waste" as all putrescible and nonputrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, and recyclable materials.
>
> Ecology's proposed definition of "contaminated soils" and "contaminated dredged material" is inconsistent with the statutory definition because it purports to exempt those contaminated soils or dredged materials that do not fit the criteria proposed for the new regulations. For example, nothing in the statutory definition imposes a requirement that a soil and its associated contaminants are "solid wastes" only if they are "removed" during the cleanup of a "hazardous waste site, or a dangerous waste facility closure, corrective actions, or other clean-up activities ...." Contaminated soils or dredged materials could arguably be "solid wastes" under the statutory definition even if they have not been removed or do not meet the other proposed regulatory criteria.

And:

> The Proposed Regulations Should Not Exempt Contaminated Soils and Sediments Which Are Removed From Sites Other Than "Cleanup" Sites.
>
> It was fundamental to Ecology's efforts to provide guidance on contaminated soils and sediments for persons undertaking excavation activities at a construction site, an industrial facility, or other non-hazardous waste site. Often, these soils will have been "contaminated" by past industrial or commercial activities, even though the soils or sediments are being excavated for purposes other than site cleanup. Yet, the proposed definition of "contaminated soils" is narrowly defined to include only those soils that are being removed "during the cleanup of a hazardous waste site, or a dangerous waste facility closure, corrective actions, or

> other clean-up activities ...." This definition completely ignores those soils that are contaminated, yet are being excavated from sites other than the list of cleanup sites. Thus, for example, contaminated soils may be encountered in the course of redeveloping an old service station. These soils, even though contaminated, would fall outside of the definition of "contaminated soils" because the site is not technically a "cleanup site." Soils containing the exact same constituents would be treated completely differently under these regulations based on the generator's determination that the soils do or do not originate from a cleanup site.

And Trim/Mitchell:

> Although our groups each have a slightly different focus, we share a collective concern that language and definitions in WAC 173-350 be sound. While we understand the need for economically viable industries and Ports, we oppose any proposals that serve those interests at the expense of the greater public interest in clean water and habitats that support beneficial uses.

Ecology's Response **–** Ecology acknowledges this inconsistency as a flaw and intends to base the regulation of soils and dredged material in the follow-up rule making upon the threat posed by the wastes, not the source.

***Topic* – "Clean soils" should be defined.**

Clean soils and clean dredged material were proposed as those "… which are not dangerous wastes, contaminated soils, or contaminated dredged material as defined …" In other words, if the soils or dredged material are not a dangerous waste or contaminated, they are clean.

Trim/Mitchell stated the following:

> Washington State's contaminated soils definition needs to be as clear, enforceable, consistent with and supportive of other regulations, and straightforward as possible with a focus on the positive definition of soils and dredge materials rather than only stating what it is not. It is not adequate to define clean soil and dredge material as being not other definitions.

Ecology's Response **–** An alternative approach for defining clean soils and clean dredged material will be considered in the follow-up rule making.

***Topic* –Regulation of soils and dredged material as solid waste and reuse.**

One commenter expressed concern that the proposed rule would regulate an unwarranted amount of soils as solid waste.

Barnes stated the following:

> Recycling of excess soils is the goal for these types of projects. Soil determined to be "sandy loam" or "loamy sand" is excellent for the manufacturing of topsoil mixes for general landascape [*sic*] applications. To assume soil excavated from "roadside construction" projects or simular [*sic*] types of projects is always

> contaminated is just that, an assumption. A simple soils test prior to the job bidding can determine contamination or not. If soils are not over accepted levels then said soils should be available to contractors bidding the job. The assumption to call all roadside material contaminated will cost the taxpayer and the State untold costs do to soaring disposal fees! Please consider a simple more cost effective way to handle excated [*sic*] material. Thank you.

Ecology's Response – Ecology intends only to regulate soils as solid waste when they may pose a threat to public health or the environment. Only soils which contain harmful substances will meet the definition of *contaminated soils*. Furthermore, soils meeting the definition of contaminated soils may be reused when it is appropriate to do so under a solid waste handling permit. Many solid wastes are reused, treated, or recycled instead of being disposed of.

Topic – Interpreting the term "harmful substances" as used in the definition of "contaminated soils."

The proposed definition of contaminated soil includes soils from hazardous waste sites and dangerous waste facilities "… which contain *harmful substances* but are not designated as dangerous wastes." Commenters expressed concern that the term *harmful substances* is undefined in Chapter 173-350 WAC. It was suggested Ecology needs to be more definitive and provide guidance whether contaminant concentrations are low enough to be considered clean.

Butler/Hendrickson stated the following:

> The term *harmful substances is* not defined in Chapter 173-350 WAC and a threshold, below which a substance is considered harmful, is not identified. This definition of contaminated soils could he interpreted to include soils that contain hazardous substances as defined in the Model Toxics Control Act (MTCA, Chapter 173-340 WAC) at concentrations less than cleanup levels for unrestricted land uses, which would result in soils considered clean under MTCA being considered contaminated under the Solid Waste Handling Standards.

And Kenefick:

> One of the most fundamental flaws in the proposed regulations is the failure to provide any meaningful guidance for determining what is a "harmful substance." Under the proposed regulations, a soil is considered "contaminated" if it contains "harmful substances" but which are not "designated dangerous wastes." Yet nowhere do the regulations define "harmful substances." Without some definition or clarification of "harmful substance", these regulations will be unworkable and likely unenforceable. Furthermore, even if some material is a "harmful substance", there is no guidance provided as to the concentration or quantity of the substance that will render it not "harmful". For example, lead is a "harmful substance" depending on the quantity and exposure. Yet, lead is ubiquitous throughout the environment. Do the regulations intend to define soils with *de minimis* quantities of lead as a contaminated? Likewise, almost any material – even soil or water could be considered a "harmful substance" depending on the

> nature of the exposure, the receptor and dose. Furthermore, the regulations provide no explanation as to what organisms – humans, plants, animals, fish, invertebrates, and etc. – the substances would be evaluated as "harmful."
>
> The proposed regulations also provide no specific assistance in determining whether concentrations of contaminants are low enough to be considered clean. For these proposed regulations to have any practical use, Ecology needs to provide more definitive assistance in determining whether soils or sediments are clean. There are numerous potential sources that Ecology could use for establishing conservative screening levels for "clean soils" and "clean sediments." Ecology needs to provide guidance as to those levels.

Ecology's Response –Ecology acknowledges the difficulty in interpreting the proposed definition of *contaminated soils*. Several stakeholders expressed a strong desire to return to the definition of *problem wastes* found in Chapter 173-304 WAC. Ecology has proposed to grant the request on a temporary basis in this rule making.

The commenters identify one of the fundamental flaws encountered when trying to interpret the definition of *problem wastes* in Chapter 173-304 WAC as it applied to soils. The definition of *problem wastes* was often interpreted as applying to soils removed during cleanup actions that contained any detectable amount of harmful substances. At other times, the definition was interpreted to mean soils that contained potentially harmful substances at concentrations that could cause harm.

Even under the latter interpretation, there was no consistency regarding what concentrations could cause harm. Ecology finds the more stringent interpretation of including all soils (removed during the cleanup of hazardous waste sites or dangerous waste facilities) containing detectable concentrations of harmful substances to be excessive, and beyond the original intent when adopted in 1985. The definition of *contaminated soils* should be interpreted to apply to soils which contain contaminants (as defined in the rule) at concentrations that could cause harm to human health or the environment.

Persons should evaluate potential exposed populations, exposure pathways, and routes under the conditions of placement when making this determination. Other regulatory requirements must also be considered, such as potential impacts to groundwater, surface water, and air.

Soils containing potentially harmful substances at concentrations that would not pose a threat under reasonable circumstances are not regulated. Ecology will provide soil concentration screening levels for common contaminants for use in the interim. Soils having contaminant concentrations equal to or less than the soil screening levels will meet the definition of clean soils so long as they are not

placed in direct contact with groundwater or near to building foundations. Soils having contaminants greater than the screening levels will need to be evaluated on a case by case basis. Solid Waste & Financial Assistance Program staff will be available to work with local health departments and others to provide timely technical assistance.

***Topic* – Interpreting the term "removed" as used in the definition of "contaminated soils."**

Two comments were received regarding the interpretation of the term *removed* as it is used in the definition of *contaminated soils*.

Kenefick stated the following:

> The requirement that soils are considered contaminated only if "removed" during cleanup would exempt contaminated soils from regulation if they are not removed.
>
> It is not apparent why Ecology would impose a requirement that soils must be "removed" to be considered a "contaminated soil" even if the soils contain "harmful substances." Yet, as defined, a soil would not be considered "contaminated" if it has not been "removed". As mentioned above, this definition is not supported by the statutory definition.

And:

> The proposed regulations are unclear as to the meaning of "removed".
>
> While the regulations require a soil to have been "removed" to be considered a contaminated soil, nowhere do the regulations explain what is meant by "remove". If soils are excavated from one part of a facility and used as backfill in another part of the same facility, are they considered to have been "removed"? Or must the materials have been transported off-site before they would be considered "removed".

Ecology's Response – The Solid Waste Handling Standards "…applies to facilities and activities that manage solid wastes as that term is defined in WAC 173-350-100." Soils remaining in place are not being handled or managed. Therefore, the rule, and its definitions, has no applicability to soils that have not been excavated or removed.

The term *removed* is intended to mean the point when the management, storage, collection, transportation, treatment, use, processing or final disposal of a soil begins. This is typically when the soil is first excavated.

However, when remedial or corrective actions are taken by the state, EPA, or others to comply with a state and/or federal cleanup order or consent decree, the term will only have little significance until the soils are removed from the site. Soils will be managed on-site in accordance with the site cleanup action plan. In accordance with WAC 173-350-700(1)(b), permits issued under Chapter 173-350 WAC are not required for remedial actions performed by the

state and/or in conjunction with the United States Environmental Protection Agency to implement the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA), or remedial actions taken by others to comply with a state and/or federal cleanup order or consent decree.

Topic –The relationship between contaminated soils and cleanup levels.

Several comments were received regarding the relationship between the definition of clean/contaminated soils and soil cleanup levels found in the Model Toxics Control Act Cleanup Regulation, Chapter 173-340 WAC.

Butler/Hendrickson stated the following:

> In our opinion, "contaminated soils" should be defined as soil with concentrations exceeding MTCA unrestricted site use cleanup levels, or other applicable regulatory standards.

Dorigan suggested the following approach:

> Materials and soils that exceed MTCA (Ch. 173-340 WAC) or Sediment Management Standard (Ch. 173-204 WAC) but do not exceed Dangerous Waste (Ch. 173-303 WAC) definitions are solid waste.

Trim/Mitchell stated the following:

> Ecology must avoid blurring the distinction between clean-up standards and standards that are designed to prevent contamination and must ensure that clean-up standards — which were developed for a specific set of defined circumstances — are not being incorrectly embraced as protective standards.

Ecology's Response **–** Because of a lack of other available methods, concentrations based on Model Toxics Control Act Cleanup Regulation, Chapter 173-340 WAC, standards were often used to determine if a soil was clean under Chapter 173-304 WAC. Typically, Method A or Method B cleanup levels for residential or unrestricted land use were applied.

There are two primary flaws with this simplistic approach. First, cleanup levels are the concentration of a hazardous substance in soil, water, air or sediment that is determined to be protective of human health and the environment under specified exposure conditions. Most applications of the cleanup standards did not take exposure conditions into account. Second, the Model Toxics Control Act Cleanup Regulation (MTCA) was developed to set standards for cleaning up sites where there has been a significant release, or threatened release, of a hazardous substance. In other words, the damage had already been done. The rule was not developed with the intention of setting standards to protect sites where no release, or threat of a release, exists.

There are additional flaws with the simple application of Method A or Method B cleanup levels. They are based primarily upon human health threats alone; environmental impacts are not considered. Furthermore, potential exposure

pathways, such as inhalation, are not considered which may result in threats to public health.

While Ecology often supported the use of MTCA cleanup levels as a tool to estimate potential risks posed by contaminants in soil, it was not universally applied. Ecology's Guidance for Remediation of Petroleum Contaminated Soils is an example where recommendations for handling problem wastes differed from MTCA cleanup levels.

***Topic* – The relationship between contaminated dredged material and sediment standards.**

One comment was received regarding the relationship between the definition of clean/contaminated dredged material and marine sediment quality standards found in the Sediment Management Standards, Chapter 173-204 WAC.

Dorigan stated the following:

> The dredged material definition should state that the material cannot exceed Washington Sediment Management Standards.

Ecology's Response **–** The proposed definition of contaminated dredged material is directly related to sediment quality standards. Dredged material is contaminated when contaminants are present in the dredged material at concentrations not suitable for open water disposal. However, in accordance with WAC 173-350-020(8), the requirements of Chapter 173-350 WAC do not apply when dredged material is disposed in open water. Dredged material not suitable for open water disposal meets the proposed definition of *contaminated dredged material* and is subject to the standards of Chapter 173-350 WAC when handled on land.

***Topic* –The relationship between solid waste and dangerous waste regulations.**

One comment was received regarding the relationship between the definition of clean/contaminated soils and dredged material and the Dangerous Waste Regulations, Chapter 173-303 WAC.

Kenefick stated the following:

> The proposed regulations conflict with Washington's Dangerous Waste Regulations.
>
> The proposed regulations will create a treacherous conflict between the solid waste regulations and Washington's Dangerous Waste Regulations, Chapter 173-303 WAC. Under the Dangerous Waste Regulations, WAC 173-303-070(3)(c), a generator of solid waste is responsible for determining whether a excavated soils or sediments are a dangerous waste either through prescribed test methods or through generator knowledge when:
>
> (A) Such knowledge can be demonstrated to be sufficient for determining

> whether or not it designated and/or designated properly; and
>
> (B) All data and records supporting this determination in accordance with WAC 173-303-210(3) are retained on-site.

WAC 173-303-070(3)(c)(ii). Thus, the regulations place on the generator of waste the affirmative responsibility to characterize the waste. The generator is not free to assume that the waste is not a dangerous waste simply because it does not come from a "cleanup site".

Yet, the proposed definition of "clean soils" and "contaminated soils" would appear to exempt a generator from making this determination if the soils are not being removed "during the cleanup of a hazardous waste site, or a dangerous waste facility closure, corrective actions, or other clean-up activities ...." In that circumstance, all the generator need do is confirm that the site is not a "cleanup" site. While Ecology could respond by arguing that the proposed definitions do not exempt persons from complying with the Dangerous Waste regulations, the proposed definition might easily be read to create such an exemption.

Ecology's Response – While the Solid Waste Handling Standards, Chapter 173-350 WAC, interface in many areas with the Dangerous Waste Regulations, Chapter 173-303 WAC, it is not possible, or even desirable, for the two regulations to be consistent in every way. The Dangerous Waste Regulations apply very prescriptive requirements to generators, transporters, and treatment, storage, and disposal facilities that are not always appropriate for handling non-dangerous solid waste. Because of the many differences in the regulations, Ecology does not believe the definition of *contaminated soils* will cause significant conflicts.

Topic –Sampling and analysis of soils and dredged material.

One comment was received recommending specific guidance or regulatory requirements for sampling and analysis of soils and dredged material.

Kenefick stated the following:

> The regulations fail to provide any guidance on how to sample to determine whether soils or sediments are contaminated.
>
> Waste Management strongly recommends that Ecology provide more specific direction on the amount of sampling that must be undertaken to determine that materials are clean. There are numerous sources for this kind of guidance. Indeed, Ecology has developed such guidance for numerous other regulatory programs. See, e.g., Ecology, *Guidance on Sampling and Data Analysis Methods* (Jan. 1995); WAC 173-340-830(3)(a) (listing different sampling methods). Similarly, numerous state and federal agencies have undertaken major efforts to address this issue. Indeed, Ecology, along with the U.S. Environmental Protection Agency, the U.S. Army Corps of Engineers, the Washington State Department of Natural Resources, and the Oregon Department of Environmental Quality recognized the significance of this issue for dredged sediments and analyzed it in detail in

Dredge Material Evaluation Framework (Lower Columbia River Management Area) (Nov. 1998); see also EPA & USCOE, *Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. - Inland Testing Manual,* EPA 823-B-98-004 (Feb. 1998). EPA has a well-developed and widely-used technical manual for sampling and analyzing wastes in EPA, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,* Pub. No. SW-846 (May 1999).

By not providing specific direction on sampling methodology, frequency, or the chemical parameters to be analyzed, Ecology is creating a large loophole in the regulatory scheme. A party who disposes soils or sediments will have no requirements regarding sampling and analyzing for hazardous substances present and might merely analyze one grab sample for a few parameters and then conclude that the materials soils do not contain "harmful substances" or the substances it contains are below thresholds that the generator deems "harmful. If, however, the party had undertaken a more thorough sampling program (e.g., using representative sampling for the hazardous substances that could reasonably be present) it may have reached the opposite conclusion.

Waste Management further requests that Ecology include a provision in the rules that (1) specifies which chemical compounds must be analyzed to establish soils or sediments as "clean" and (2) requires analysis of other possible contaminants based on the party's knowledge of the reasonably likely sources of contamination. Without such specifications, a party might conclude that soils or sediments are "clean" based on a metals analysis, without ever checking for high concentrations of pesticides, chlorinated hydrocarbons, and other contaminants. Requiring sampling of hazardous substances that might reasonably be present is especially important for dredged sediments because the information necessary to characterize the type and nature of the contamination requires knowledge of not only the historical site uses, but also upstream historic discharges. One cannot safely assume that dredged sediments are clean merely because there are no current sources of contaminants in the immediate vicinity of the dredge location.

And:

The proposed regulations imposes less screening than required for landfill disposal or use of soils or sediments.

By not imposing adequate sampling and analytical requirements, the proposed regulation creates the bizarre irony that soils and sediments destined for application other than at a permitted landfill receive less scrutiny than those destined for disposal at a permitted landfill. Under the proposed regulation, the generator of soils or sediments need only undertake sampling and analysis "when the degree of uncertainty associated with contaminants in a soil or dredged material source is high enough that reliable conclusions cannot be safely drawn based solely on existing knowledge." In contrast, permitted solid waste facility operators are required to screen wastes, typically by requiring analytical confirmation that soils or sediments are not dangerous or hazardous wastes before the materials can be disposed of in lined, state-of-the-art facilities. The proposed

> regulation is therefore especially frustrating for landfill owners and operators like Waste Management who have invested millions of dollars in their landfill assets, only to have contaminated soils and sediments applied to lands with no environmental controls whatsoever.

Ecology's Response – Ecology does not believe it is appropriate at this time to include specific sampling and analytical requirements in the rule for characterization of soils and dredged material. By limiting the rule to hazardous waste sites, dangerous waste facilities, and dredging projects, Ecology expects much of the soil and dredged material characterization to be addressed prior to the wastes being subject to regulation. Generally, chemicals of concern and approximate concentrations in soil have been identified at sites undergoing cleanup. This is also true for sediments at most dredging projects. Generators and other handlers should contact the jurisdictional health department to determine if additional characterization is needed for proper management of soils and dredged material under the rule.

Ecology believes the proposed regulations will not impose fewer screening requirements for soils and dredged material handled in ways other than landfill disposal in most circumstances. Municipal solid waste landfills are allowed by rule to accept soils and dredged materials that are not dangerous waste or PCB wastes, which are subject to the requirements of other (more stringent) applicable rules. It is, however, possible soils from sources other than hazardous waste site and dangerous waste facility cleanup actions (such as street wastes) may face less scrutiny than those delivered to landfills for disposal. Ecology intends to resolve this issue in the follow-up rule making.

Because of the wealth of appropriate sampling guidance available, it is not necessary to add new concepts or limit procedures to specific methodology with this temporary rule change. Ecology will evaluate characterization methods and consider including sampling and analysis requirements in the follow-up rule making.

Topic –Experiences with current definitions.

Several comments were received regarding the 2004 definitions.

Butler/Hendrickson stated the following:

> The existing definitions of clean and contaminated soils and dredged materials in Chapter 173-350 WAC have the potential to cause and, in some cases have caused, significant problems for soil management during development activities. We appreciate Ecology beginning the rule revision process.

And White:

> We agree that e rule amendment as written is not expected to carry cost impacts to public or private entities. However, we disagree with your basis for this conclusion.
>
> We respectfully offer the following comments.

Publication 05-07-001 says: *"In the last two years, the change from the prior language, which is being used in this proposed amendment, has had little impact, "* and *"no small business was affected in the last two years. "* These statements include a footnote stating the new *rule,* as it was applied to WSDOT's Port of Port Angeles Graving Dock project, did not cause delay or additional costs and that no small business was affected. The footnote further states the local health jurisdiction, with Ecology's backing, asked that soils go either to the nearby landfill or to a nearby cleanup site for grading use. Ecology states, "WSDOT didn't like our options, which they claimed would coat more (this is a matter of dispute)."

To clarify, the rule posed a significant cost impact to the Port Angeles Graving Dock project and to WSDOT operations in general. Regarding the Port Angeles Graving Dock project specifically, WSDOT experienced a three-month delay while negotiating a disposal/re-use location for excess soils from the project. If there had not. been existing areawide data establishing background contaminant levels, this delay would have been significantly longer as WSDOT characterized background soils in and around the area to determine an appropriate re-use location. The alternative to characterizing backg[r]ound soils in and around the area was to take all soils to the local permitted landfill. It is unlikely the local landfill would have been capable of accepting such a volume of soil. Even if they had been able to accept it, we believe filling landfills with slightly contaminated soil would be an unintended negative consequence of the rule as it was written. Another option was to take the soil to a nearby cleanup site for grading use. Unfortunately, this option had unacceptable risks to WSDOT because, without established cleanup limits at the site, WSDOT would be assuming unknown,' unquantifiable risk as a potentially liable party to the cleanup.

Further, had the project not been abandoned, WSDOT would have incurred additional costs related to disposal and/or re-use of dredged sediments.

As a larger issue, WSDOT expected to hear substantial costs statewide due to implementation of Chapter 173-350 WAC As an example, for the 2004 construction season, we estimated that approximately 3,500,000 cubic yards from over 40 projects would be subject to new requirements at more expense under Chapter 173-350 WAC. We are interested in understanding more about Ecology's dispute of these findings and, frankly, I find it unusual that any particular regulated entity (in this case WSDOT) is referred to in this manner in a cost benefit analysis.

Finally, most of the construction industry and others that handle soils would agree that the only reason small businesses were not affected by Chapter 173-350 WAC over the past two years is because local health jurisdictions are just now beginning to grasp the intent of the antidegradation clause contained therein. It is quite clear that within a short period of time, the existing Chapter 173-350 WAC would have posed major cost impacts to any entity in the business of moving soil from one location to another.

And Olsen:

> At this point in time Kitsap County Solid Waste Division (SWD) has not had a project that required the application of the portion of the regulations that is impacted by these definitions. On the surface, the SWD does not have a concern with the definitions as written in the current regulations.

Ecology's Response **–** Ecology acknowledges the 2004 rule, as it applied to the regulation and management of soils and dredged material, had varying degrees of success in its intended goals. In some cases, it allowed handling soils and dredged material containing contaminants in creative ways that protected public health and the environment while significantly reducing costs. However, other stakeholders reported their projects experienced delays and associated costs.

Much of the difficulty appeared to be the result of a lack of specificity in the rule for determining when a soil or dredged material contained "…contaminants at concentrations which could negatively impact the existing quality of …" environmental media. Many stakeholders expressed the desire to change the definitions of contaminated soils and contaminated dredged material back to the definitions of *problem wastes* found in Chapter 173-304 WAC. However, the definitions in the original Chapter 173-350 WAC were developed because of difficulties experienced from the definitions of problem wastes. By temporarily returning to definitions that had been in place for over seventeen years, Ecology hopes difficulties with interpreting the rule will be reduced until a more lasting solution can be developed.

Ecology expects difficulties in managing soils containing contaminants will be reduced, but not eliminated, under the temporary rule change. Soils removed from hazardous waste sites and dangerous waste facilities and dredging projects are generally well characterized. This should allow determinations regarding appropriate handling easier to make and quicker to implement.

Comments associated with future rule making efforts

Topic – Involvement in follow-up rule making.

Comments were received requesting involvement in follow-up rule making efforts regarding the regulation of soils and dredged material.

Wells requested the following:

> I would like to be added to the mailing list for all further information regarding this rulemaking, including any information regarding technical advisory group meetings and reports. Please advise how I can do so. Thanks.

Ecology's Response – Mr. Wells will be added to mailing lists and will be notified of opportunities to be involved in follow-up rule making.

Olsen stated the following:

> I would also like to recommend Dr. Michelle Miller as a participant in the External Advisory Council. Dr. Miller has a Ph.D. in soil science, is a certified professional soil scientist and a licensed geologist. She has also worked in the regulatory arena for many years as both a regulator and regulated party.

Ecology's Response **–** Ecology is familiar with Dr. Miller's involvement and expertise on regulating street wastes and other soils containing contaminants. Her participation will be considered when the advisory committee is formed.

Topic –Basis for follow-up rule making.

Trim/Mitchell stated the following:

> We urge Ecology to proceed with a complete rule making process that is supported by adequate technical and scientific input from the public as well as other Ecology mandates that will be impacted by the definition changes (i.e., water quality and sediment protection and toxics clean-up).
>
> Further, we strongly request that the definition of clean soil be based on a safe and healthy environment and include language such as: "that do not contain contaminants at concentrations which could negatively impact the existing quality of air, waters of the state, soils, or sediments; or pose a threat to the health of humans or other living organisms or a violation of associated standards." A definition that is protective of the water quality and helps prevent further contamination from other exposure routes will protect beneficial uses of our waters and other resources and thus will likely be in compliance with the federal Clean Water Act.

Ecology's Response **–** Ecology intends the follow-up rule making process to include broad stakeholder and public input. The final rule will be supported by technically and scientifically sound principles.

Topic – Applicability of the rule to street wastes.

The applicability of the rule to street wastes will change under the proposed rule. Under the 2004 rule, litter, trash, and hazardous chemicals are all *contaminants.* Street wastes are regulated as *contaminated soils* when the concentration of these contaminants is sufficiently high. Under the proposed rule, many street wastes will be regulated as solid waste because of the solid waste (litter, trash, etc.) contained in the waste. Once the waste materials are removed, street wastes will not be regulated as *contaminated soils* regardless of the hazardous chemical concentration.

Olsen stated the following:

> However, if Ecology is going to re-evaluate portions of Chapter 173-350 WAC the SWD would like street waste to be included in the discussions. Street waste is a costly material to handle with generally little guidance from Ecology and a relatively low risk to the public.

Ecology's Response – Street wastes are not specifically addressed under the proposed rule. However, clarity on the applicability and inclusion of appropriate standards for handling street wastes under the rule are a priority for many stakeholders. Ecology intends to include street wastes in future rule making activities.

Street wastes often contain hazardous substances (lead, polycyclic aromatic hydrocarbons, petroleum, etc.) that can pose a threat to the public or the environment under some circumstances. Appropriate Best Management Practices (BMPs) for handling street wastes can be found in the Stormwater Management Manual for Western Washington, Publication Numbers 99-11 through 99-15, Appendix IV-G, and the Stormwater Management Manual for Eastern Washington, Publication Number 04-10-076, Appendix 8B. Both publications can be found at this web address: http://www.ecy.wa.gov/programs/wq/stormwater/tech.html

Topic – Soil and other fill material should be defined.

One commenter suggested *soil* be defined and another term used for other types of fill material.

Dorigan stated the following:

> Soil should be defined in a manner that respects the scientific definitions from biology and geology. It could be as simple as "material in the top layer of the surface of the earth in which plants can grow". It could be as complicated as the one from Federal Guidance Report 12, the composition of soil is given as "Soil Composition by Element Mass Fraction: H 0.021, C 0.016, 0 0.577, Al 0.050, Si 0.271, K 0.013, Ca 0.041, Fe 0.011 with a total of 1.000. The soil density: 1.6 x 103 kg m-3. Soil does not include street sweepings
>
> An additional name and definition should be given for everything else. Fill material would be an appropriate name. The definition should be more like the current operational definition of soil which is material that does not exceed Model Toxics Control Act (MTCA) level A cleanup levels or does not exceed levels at the fill site. Fill material may include street sweepings.

Ecology's Response – Ecology agrees using soil in a broader sense than is commonly used may be problematic. The definitions of clean and contaminated soils have been applied to most earthen materials (i.e. gravel, rocks, etc.), industrial waste/soil mixtures (i.e. log sort yard waste, food processing wastes, etc.), and also non-earthen "soil-like" wastes/soil mixtures (i.e. fines generated from demolition waste recycling and spent water treatment sand). More refined approaches will be evaluated in follow-up rule making.

IV. Summary of Public Involvement Opportunities

Please provide a summary of public involvement opportunities for this rule adoption:

List or describe:

- workshop dates and locations, if any
- hearing dates and locations
  (How many people attended?)
- mass mailing pieces (i.e., FOCUS sheet, news releases)
  (How many people were these mailed to?)
- advertisements and/or newspaper announcements
  (Give newspaper names and dates)

V. Appendices

The following is a list of suggested appendices that you should include in your CES:

- Copies of all written comments received during the comment period (Number the comments. Refer to numbers when indexing responses.)
- List of individuals (name, organizational affiliation, address)providing oral comments at hearings and corresponding comment numbers for indexing
- Copies of all public notices regarding rule (i.e., FOCUS sheets, news releases, legal notices and advertisements, handouts and flyers, WSR notices)
- Copy of the final rule text